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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,737	11/29/2000	Peter Joseph Giacomini	500-002US	9624

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EXAMINER

VU, THONG H

ART UNIT PAPER NUMBER

2142

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,737

Applicant(s)

GIACOMINI ET AL.

Examiner

Thong H. Vu

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/00.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-32 are pending.
2. The copending information is missing [0001,0061]. Correction requires.
3. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. Claims 1,8,15,24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (i.e.: it was unclear How and When occasionally or under What condition the integer will be greater than one).
5. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "occasionally" in claims 1,8,15,24 are used by the claim to mean "parallel or concurrently request" or "the threshold for at least two requests", while the accepted meaning is "an integer at least occasionally greater than one." The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-32 are rejected under 35 U.S.C. § 103 as being unpatentable over IBM (Directory Algorithm Communication Peer Networks) in view of Melton et al [Melton, 5,133,061].

6. As per claim 8, IBM discloses a data processing system [IBM, a computer network, page 1] comprising:

a cache for storing a resource [IBM, cache response to queries, page 1]; and
a processor for populating said cache with said resource [IBM, each cache server is populated, page 4]

However IBM does not detail
only when at least i requests for said resource have been received; wherein i is an integer is an at least occasionally (i.e.: randomly) greater than one.

In the same endeavor, Melton discloses a computer system using a permutation mechanism for improving the randomization of cache accesses utilizing a bit matrix multiplication wherein an integer having a value greater than 1 [Melton, abstract, col 12 line 30-col 14 line 8; 15 line 50-col 16 line 20].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the cache request with a value greater than 1 as taught by Melton into the IBM's apparatus in order to utilize the cache memory. Doing so would provide a way to improve the distribution of data.

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7. As per claims 2,9,16,25 IBM-Melton disclose the value of i is invariant [Melton, a fixed amount of time, col 2 lines 52-67].

8. As per claims 3,10,17,26 IBM-Melton disclose the value of i is based on calendrical time [Melton, at any time, col 4 lines 34-60].

9. As per claims 4,11,18,27 IBM-Melton disclose said cache is populated with said resource only when at least i requests for said resource have been received within an elapsed time interval [Melton, the cache access time, col 14 line 58-col 15 line 12]

10. As per claims 5,12,19,28 IBM-Melton disclose the duration of said elapsed time interval, A_t , is based on the value of I [Melton, at any time, col 4 lines 34-60].

11. As per claims 6,13,20,29 IBM-Melton disclose the value of i is based on calendrical time [Melton, at any time, col 4 lines 34-60].

12. As per claims 7,14,21,30 IBM-Melton disclose the duration of said elapsed time interval, A_t , is based on calendrical time [Melton, at any time, col 4 lines 34-60].

13. Claims 1,15,24 contain the similar limitations set forth of apparatus claim 8. Therefore, claims 1,15,24 are rejected for the similar rationale set forth in claim 8.

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14. As per claims 22,31 IBM-Melton disclose said computer network is a hierarchical computer network and said first node has m filial (i.e.: all) nodes [IBM, a computer network, page 1]; wherein said cache is populated with said resource only when at least one request for said resource has been received from at least n of said m filial nodes [IBM, each cache server is populated, page 4]; and wherein m is an integer greater than one, n is an integer greater than one, and $m \geq n$ [Melton, an integer having a value greater than 1, abstract, col 12 line 30-col 14 line 8; 15 line 50-col 16 line 20].

15. As per claim 23,32 IBM-Melton disclose said computer network is a hierarchical computer network and said first node has m filial nodes; wherein said cache is populated with said resource only when at least one request for said resource has been received from at least n of said m filial nodes within an elapsed time interval, At [IBM, each cache server is populated, page 4]; and wherein m is an integer greater than one, n is an integer greater than one, and $m \geq n$ [Melton, an integer having a value greater than 1, abstract, col 12 line 30-col 14 line 8; 15 line 50-col 16 line 20].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-32 are rejected under 35 U.S.C. § 103 as being unpatentable over Desai [6,434,608 B1] in view of Gaskins et al [Gaskins 5,809,562].

16. As per claim 8, Desai discloses a data processing system comprising:

a cache for storing a resource [Desai, an object is cached, col 3 lines 35-58]; and
a processor for populating said cache with said resource only when at least i requests for said resource have been received; [Desai, a processor 202, Fig 2; cache population with a population threshold which ensure the cache fills up more quickly than it would, col 6 line 30-61; adjusting caching threshold accordingly (i.e.: occasionally).

However Desai does not explicitly detail

wherein i is an integer is an at least occasionally greater than one.

Gaskins taught a cache populates with a high speed SRAM resource [col 7 lines 34-46] wherein the cache memory of size $M*N$ is an integer having value greater than 1 [Gaskins, col 6 line 27-44]

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the cache request with a value greater than 1 as taught by Gaskins into the Desai's apparatus in order to utilize the cache memory. Doing so would provide a way to improve the distribution of data.

17. As per claims 2,9,16,25 Desai-Gaskins disclose the value of i is invariant as a design choice of system administrator [Desai, col 7 lines 40-55].

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18. As per claims 3,10,17,26 Desai-Gaskins disclose the value of i is based on calendrical time as a design choice of system administrator [Desai, any time, col 6 lines 43-45; variety of times, col 7 lines 40-55].

19. As per claims 4,11,18,27 Desai-Gaskins disclose said cache is populated with said resource only when at least i requests for said resource have been received within an elapsed time interval as a design choice of system administrator [Desai, col 7 lines 40-55]

20. As per claims 5,12,19,28 Desai-Gaskins disclose the duration of said elapsed time interval, At , is based on the value of I [Desai, cache is idle, col 3 lines 45-57].

21. As per claims 6,13,20,29 Desai-Gaskins disclose the value of i is based on calendrical time as a design choice of system administrator [Desai, col 7 lines 40-55].

22. As per claims 7,14,21,30 Desai-Gaskins disclose the duration of said elapsed time interval, At , is based on calendrical time [Desai, any time, col 6 lines 43-45; variety of times, col 7 lines 40-55].

23. Claims 1,15,24 contain the similar limitations set forth of apparatus claim 8. Therefore, claims 1,15,24 are rejected for the similar rationale set forth in claim 8.

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24. As per claims 22,31 Desai-Gaskins disclose said computer network is a hierarchical computer network and said first node has m filial (i.e.: all) nodes; wherein said cache is populated with said resource only when at least one request for said resource has been received from at least n of said m filial nodes; and wherein m is an integer greater than one, n is an integer greater than one, and $m \geq n$ [Gaskins, an integer having value greater than 1 col 6 line 27-44].

25. As per claim 23,32 Desai-Gaskins disclose said computer network is a hierarchical computer network and said first node has m filial nodes; wherein said cache is populated with said resource only when at least one request for said resource has been received from at least n of said m filial nodes within an elapsed time interval, At; and wherein m is an integer greater than one, n is an integer greater than one, and $m \geq n$ [Gaskins, an integer having value greater than 1 col 6 line 27-44].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3904. The examiner can normally be reached on Monday-Thursday from 7:00AM- 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Andrew Caldwell*, can be reached at (571) 272-3868. The fax number for the organization where this application or proceeding is assigned is 703-872-9306

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Vu
Patent Examiner
Art Unit 2142

